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ABSTRACT

Two papers on performance indicators are presented: (1) "Quality Control in Education: The Use of Performance Indicators," by Ernest Theodossin, and (2) "Developing and Using a Performance Indicator Instrument," by Theodossin and Craig Thomson. The first paper looks at the relationship between colleges and the manufacturing industry and service industries in terms of quality control and lists the activities involved in service industry quality control. Such a system for educational organizations requires an understanding of the perceptual differences between the client (students and employers) and provider (managers). Some of the performance indicators delineated are provider performance indicators of efficiency, client performance indicators of efficiency, provider performance indicators of effectiveness, and client performance indicators of effectiveness. The advantages and limitations of performance indicators are listed. The management accountability process involves gathering, analyzing, and interpreting data as well as obtaining more data and acting on it all. Managers must use performance indicators to note possible problem areas. The second report reviews a national survey of 2500 college students on client satisfaction. It analyzes the data from the Responsive College Programme in terms of creating a performance indicator instrument. Tables showing the statistics from the survey are included along with an appendix that provides a general description of the questionnaire. (SM)

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Performance Indicators: Theory and Practice

Coombe Lodge Report

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COOMBE LODGE REPORT
Volume 20 Number 1

PERFORMANCE INDICATORS: THEORY AND PRACTICE

By Ernest Theodossin and Craig Thomson

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PERFORMANCE INDICATORS: THEORY AND PRACTICE

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FOREWORD

Only time can tell whether we are witnessing a fad or a development in the current concern with performance indicators. However, they are likely to remain with us in one way or another for the immediate future. We can anticipate (and have already encountered) conflicting claims and charges. In a recent (28th August) **Times Educational Supplement** leader on school performance indicators, the title ('If it moves, measure it') betrays familiar fears, and we are warned of 'the thought police' and the dangers of seeking 'the educational holy grail'. As the debate commences, a detailed, critical look at performance indicators seems appropriate. Hence this report.

The first of two extended papers attempts to develop a conceptual framework of FHE performance indicators and to identify the potential uses and limitations of such indicators. It argues that performance requires performers, and that college providers and clients may have different needs, expectations and aspirations. Therefore, if a possible clash between the demands of efficiency and effectiveness needs reconciliation, so, too, may potential differences among provider and client demands.

In the second paper, a national survey of client satisfaction among 2500 students undertaken by The Responsive College Programme is analysed to simulate the actual use of such data in a college setting. If we are into value for money, whose value and whose money are we considering? Can students be relied on to give valid evidence? What do students think about their colleges, their courses, their teachers? How does one collect information? What can it reveal? How can one act on the data? The results are likely to confirm some expectations and to challenge others.

Ernest Theodossin
Deputy Director
The Responsive College Programme

QUALITY CONTROL IN EDUCATION: THE USE OF PERFORMANCE INDICATORS

Ernest Theodossin
Deputy Director, The Responsive College Programme

Effectiveness, or quality as it is sometimes termed, appears to be a growing preoccupation in education management. Some might view the interest as a traditional concern suddenly rendered the focus of fashionable anxiety. If this is so, a likely explanation is close to hand. The Audit Commission (**Obtaining better value for money**, 1985) has spotlit what it regards as examples of inefficiency in further education (FE). The joint efficiency study (DES/WO **Managing colleges efficiently**, 1987) has recommended how the alleged problems might be tackled. There is suspicion (FEU, 1987a) about the pursuit of efficiency divorced from a comparable commitment to its managerial companion, effectiveness or quality. If we are about to embark on a national approach to measuring educational efficiency, ought we not first to establish that what we are hoping to achieve more productively is worth doing and will be well done?

THE SERVICE INDUSTRY PERSPECTIVE

Although British education has historically exhibited a reluctance to align itself too closely with the world of industry and commerce — and has at times opposed commercial values — it frequently parallels its industrial counterparts in work methods and underlying assumptions. For example, there are close similarities between manufacturing industry and colleges. The latter have their products (courses) and participate in an elaborate quality control system designed to ensure standardisation. In

manufacturing industry, quality control is about consistency, about product duplication which does not deviate significantly from artefact to artefact: the emphasis is upon ensuring that inputs and outputs are as identical as possible. Education, too, has elaborate input controls for many of its courses. There are entry requirements. Extensive interview arrangements are designed to ensure that if there are 40 places and 140 applicants, the 100 judged least able to benefit from the course are rejected. There is often talk about the quality of candidates, and whether this year's supply is comparable to last year's, about the 'material' currently on offer, and about the essential need to maintain standards. In public sector institutions the courses themselves are scrutinised, validated and legitimised by national agencies. At the output end these agencies strive for standardisation through controlled examination and moderation systems. The intention is to ensure that a BTEC/BA/BEd from X is comparable to a BTEC/BA/BEd from Y or Z.

At the opposite extreme from manufacturing industry, we have the world of service industries. Here quality control is not about standardisation and consistency, but about customisation, about individualising the client's (as distinct from customer's) purchase, about responding to individual need and expectation. At the down-market end of the business, customisation is difficult to obtain: we are into package holidays, set menus, off-the-peg clothes, the world of take it or leave it, with substitutions/alterations/ modifications either not allowed or available only at an additional cost. As we move up-market — towards individual travel arrangements, á la carte menus, bespoke tailoring — the prices rise correspondingly, but so does the focus on matching provision to client. In the highest quality service, the client is expected either to get his way or at least to be able to negotiate his purchase and to influence its delivery to some extent.

A similar kind of negotiation exists in education as well, even if its availability is somewhat restricted. From time to time colleges exhibit some of the characteristics of high quality service industries with an emphasis on individualisation. As we move away from 'O' level and 'A' level (where teacher control tends to dominate) some degree of choice within courses is often available. The Scottish modular system represents a form of quasi-customisation where small components can be variously assembled. In certificates, diplomas, first and masters' degrees, project work often allows for considerable negotiation. Research degrees (MPhils, PhDs) are entirely negotiated, and frequently customised, except perhaps in fields where students are awarded qualifications for undertaking some part of a larger

research project, often under the direction of their supervisors.

Nevertheless, given two industrial models (manufacturing and service) and two distinctive quality control systems (standardisation v customisation), one would find some difficulty in arguing that general practice in traditional British education was more congruent with the latter than the former. The tendency has been for educationists to talk about 'high quality products' (often described in terms of student output rather than courses) and to characterise learning in Britain as 'envied' across the globe in less well endowed countries. At the same time, the 'quality' dimension (insofar as it can be demonstrated comparatively) has been achieved through a relatively low participation rate. In many respects, Britain has a less well trained and less well educated population than many of its industrial competitors.

The assertion that Britain is thus lagging behind other nations in its commitment to education and training is central to the government polemic directed at further and higher education colleges (NEDC/MSC 1984). Education has been accused of being remote from the workplace, failing to respond to employer needs, irrelevant, ivory-towered, academic in its focus, provider-centred, out of date: familiar, time-honoured allegations, but now given a sense of barbed urgency by the demographic downturn, with its contraction in traditional markets, by high levels of youth unemployment, and by widespread questioning of the value and purpose of education. Education is defensive. Accountability is very much in the air, and **efficiency** and **effectiveness** are the means by which accountability is discharged. The needs to demonstrate that money has been well spent and that clients are satisfied have thus acquired an importance which would have seemed eccentric only a few years ago. Moreover, declining traditional markets and the instinct for system survival frequently pose a connundrum for colleges: in the manufacturing industry model, lower quality inputs do not square with the maintenance of high quality outputs (*pace* the 1960s' battle cry, **more means worse**).

In part, resolution has been sought through organisational competition, and we may expect much of this to continue over the coming years, between schools and colleges, colleges and polytechnics, polytechnics and universities, public and private sectors. The old markets will continue to experience vigorous rivalry as institutions strive to maintain their share of business or to poach from rival establishments. At the same time there has also been growing interest in opening new markets, and in developing an approach to education and training provision which approximates more

closely to the service industry model. There are many explanations. Private sector training has moved onto the scene. Non-conventional markets — e.g. the less well qualified young, unqualified adults, women, single parents, ethnic minorities, adult retrainers, recurrent education, etc. — are, by definition, unlikely to fit tidily into conventional provision. Traditional methodologies are being challenged, by distance/open learning, by self-paced instruction. All of these developments imply some degree of differentiation, of matching offerings to people, of individualising, of customising.

At the same time, one has to emphasise that the consequences are likely to be 'some degree' of change, rather than dramatic transformation. There are a number of constraints:

1. Customisation is expensive. Individualisation requires that negotiation be done on a one-to-one basis. That this has tended to be confined to either parts of courses (e.g. projects) or to the relatively highly resourced area of post- graduate research students is understandable.

2. The early stages of learning, particularly where the student is moving into *ab initio* areas of study, are unlikely to benefit significantly from customisation, since the student rarely knows enough about the possibilities and complications to negotiate meaningfully.

3. Large and complex systems like national educational provision do not metamorphose themselves precipitately. Change, if it occurs at all, tends to be both slow and incremental. If central government dictat has to some extent imposed the Scottish modular system, it has not done so without continuing difficulty, and in England and Wales it has up to the present effected significantly less change.

Therefore, if we speak of a movement towards customisation, we need to do so in terms of an increasing awareness, a growing interest, a partial shift. On the other hand, when competition occurs in a buyer's, rather than a seller's, market, more attention is likely to be paid to the buyer, to stimulating his interest, identifying his needs, acknowledging his expectations, and taking account of his perceptions. All of these activities are part of a service industry quality control system, and it is to the delineation of such a system for educational organisations that I turn.

CLIENTS AND PROVIDERS

Colleges exist to facilitate learning and teaching, but those engaged in such (frequently cognate) activities under the aegis of an institution form two fairly distinct groups, each with singular and frequently differentiating interests, values and expectations. A useful way of distinguishing between the two groups is in terms of **those who makes demands** and **those whose function is to attempt to satisfy those demands**. The former are clearly **clients**, and they can include students, employers, examiners, validators, advisers, teachers, etc. (Theodossin 1986), but for our present purposes it will be useful to consider only **students** and **employers**. The second group (those who are employed to confront demands) are **providers**, and they, too, can emcompass a diverse range of individuals (e.g. teachers, administrators, support staff, etc.), but it will be helpful to concentrate here on **managers**.

Since clients (students and employers) and providers (managers) are groups playing quite different roles in exchange relationships, we should expect that they will tend to view the learning/teaching experience quite differently. Additionally, since each group comprises individuals, we should not expect conformity of perception within either group.

If the last point seems somewhat laboured, a platitude reiterated, then one must stress that it is not a truism with which educational establishments exhibit much sympathy. Hamlet may remind us that 'There is nothing good or bad, but thinking makes it so', and yet our academic organisations spend a great deal of their energy attempting to demonstrate the reverse. Our examination/moderation system is intended to suggest that when it has processed an essay (even in response to the above Shakespeare quotation) and awarded it 62 per cent, it is worth thus much and no more or less. Or perhaps one should say that the system is supported by a hierarchy among which he/she who resides on the topmost rung is always (more) right. Of course one may challenge the examiners and moderators, but to do so is merely to acknowledge their commanding position as controllers of production output standards in the quality control system. If in the world of personal experience, all judgements are relative, individual and subjective, the lure of the reverse — the absolute, general and objective — frequently proves irresistible.

Take, for example, our old friends efficiency and effectiveness. **Managing colleges efficiently** (DES/WO 1987) offers as a starting point fairly

familiar definitions. **Efficiency** is **the relationship of inputs to outputs**, with the implication that the lesser the former and the greater the latter the more the efficiency. **Effectiveness** is **the extent to which organisational objectives are achieved**. Put thus baldly, both definitions suggest a monolithic simplicity. Efficiency and effectiveness become existential realities which can be identified and measured. Yet such measurement is objectively possible only if we reify organisations and regard them as living beings rather than as collections of individuals. Inputs (even in machines) imply inputters, and in large and complex organisations any one input is made not by everyone but by some individual(s). Similarly with effectiveness: only people, not organisations, have objectives.

Of course we are back with the problem of examiners and moderators. Organisations are structured hierarchically so that some individuals are empowered by authority and status to project the inputs they sanction and the objectives they advocate as officially universally organisational in nature. The projection may be legitimised by a formal consultation procedure and/or endorsed by even more highly positioned individuals in the hierarchy (governors, local authority representatives, etc.). Nevertheless, whatever the political situation as represented publicly, whatever the rhetoric, it is people, and not organisations, who can be described as either efficient or effective. When we recognise such attributes as characteristic of an organisation, we are, in effect, identifying them with (a) particular individual(s), and generally those with official responsibility for allocating inputs/monitoring outputs and/or assigning objectives. Such people are invariably providers rather than clients, and only some of the providers. In such a situation, the differences in perception between and among clients and providers noted above have been effectively denied any kind of recognised existence. We have returned (as we almost invariably do in education) to the world of manufacturing industry, where the mute and inanimate artefacts are denied a voice because they have none. We have a quality control system whose goal is standardisation as distinct from customisation. If we are to move towards a service industry quality control system, we need to turn now to establishing a conceptual framework for identifying client/provider perceptual differences and for measuring their presence/absence.

PERFORMANCE INDICATORS AS SYMPTOMS OR FEATURES

If only people (rather than organisations) can be efficient or effective, or

experience/perceive efficiency or effectiveness in a service industry, we need to distinguish among those so involved. And if in the final instance both efficiency and effectiveness are dependent on judgements, i.e. exist only in the minds of individuals, then we need to look for **reflections** of thinking if we want to find evidence of efficiency or effectiveness – hence **performance indicators**, symptoms or features which flag up an underlying reality, or, more accurately, a particular perception of reality, since the reality may be differently viewed. We are seeking indications, characteristics, pointers, tokens, signals, symbols, something partial which reflects a larger whole, performance indicators which serve a surrogate or proxy function.

Taking our two groups (providers and clients), and our two experiences/perceptions (efficiency and effectiveness), we may delineate likely (but by no means exhaustive) performance indicators as follows:

1. **Provider performance indicators of efficiency**

   (a) **Student-staff ratios (SSRs)**, the number of full time equivalent (FTE) students for whom a teacher is responsible, with the possibility of calculating this figure per class meeting, week, term, year, and/or with the mean established between and among teachers, or aggregated over the course, academic cost centre, curriculum area, college, LEA, nation, etc. In essence we are here talking about **the distribution of inputs**, although there is no theoretical reason why the calculations could not be related to outputs (completers, examination passes, etc.) except that by the end of the session such information would be academic, since teacher inputs could not be retrospectively adjusted or reduced. Nonetheless, there is no reason why, should enrolments fail to materialise, teachers should not be otherwise fully occupied according to agreed norms by deployment on other/new courses/provision.

   (b) **Unit costs**, i.e. the financial outlay (to/not to include costs of teachers, support staff, equipment and materials, premises cost centres, learning resources cost centres, financing charges, charges from local authorities, etc.) per FTE learner (with the possibility of defining learner

per entry, completion, examination pass, job placement, etc.) in all or part (academic cost centre) of a college/LEA/curriculum area, etc. Thus one can provide a variety of unit cost performance indicators, e.g. cost of support staff per FTE enrolment in academic cost centres, cost of teachers per FTE student completion across college, etc.

(c) **Room utilisation**, the degree to which available teaching provision is occupied by learners.

(d) The above efficiency performance indicators are about **provider value for money**, i.e. either about the disposition of resources within institutions, or the relationship of financial inputs to official outputs.

2. **Client performance indicators of efficiency**

Inputs into the teaching/learning experience are not solely the prerogative of providers. Clients, too, make inputs: money, time and effort. Upon occasion, students and employers (our immediate concerns) may regard available learning provision as too costly in terms of the inputs they are required to make to achieve their desired outputs.

(a) **Entry qualifications** may help to explain why a course attracts students or fails to do so. They may be outside college control where there are national arrangements which must be accepted. However, postgraduate students have for long shopped around for masters' degrees and doctorates, since some institutions require candidates to pass qualifying examinations. Up to the present, such considerations may have affected only a small proportion of learners, but as education seeks to open new markets, entry qualifications can be expected to become increasingly important. Older students may well expect some kind of advanced standing for life experience. If accreditation for work-based learning takes off (c.f. FESC's core skills project) negotiated entry will become an important recruitment issue. So, too, will credit transfer, with potential clients taking a consumer's interest in 'best buys'.

(b) **Course length/required contact time** likewise affect client inputs in fairly obvious ways. The Audit Commission (1985) has made us aware of variations in ostensibly comparable provision across the country.

(c) **Venue and teaching times** make significant impacts on both students and employers. The former will have to take travel time/costs into account: if they come from a long distance, does the start time accommodate off-peak travel rates? If they come from country to town, are they able to arrive and depart on available buses? If employers have to release staff, is provision offered at different points in the week to facilitate staggered attendance, and avoid depleting the work force?

(d) **Costs of fees and materials** may act as a deterrent for potential clients. If the market is large enough and the implications sufficiently embarrassing politically, arrangements may be made to facilitate entry, as with the 21-hour rule. On the other hand, there are frequently anomalies with regard to grants and employer support (not least from LEAs).

(e) Particularly in practical courses where students are developing skills and/or working independently, **teacher availability for assistance** may aid/deter student progress. High SSRs (often assisted by in-filling with learners seeking other/no qualifications, or with less/more advanced skills) may look efficient from a provider's point of view, but for a client they may simply involve unproductive delays as the learner awaits teacher attention with dressmaking, the computer, the pot on the cooker. The same problems may arise where the institution has relatively **high teacher absence rates**, possibly occasioned by stress, pressure, overwork attributable (at least in part) to circumstances which facilitate high SSRs/low unit costs, but which rebound on the client in the form of wasted time.

(f) **Institutional administration (or mal-administration)** may seriously affect both inputs and outputs for the

client: frustrating enrolment arrangements (even, upon occasion, leading to attendance at the wrong class), undue pressuring from worried underemployed staff to 'bump up' enrolment numbers, problems with room timetabling during the opening weeks of the term, frequent changes in teachers, as staff are moved from one area of work to another, possibly even in the interests of meeting demands from other clients.

(g) What will be apparent from the above is that efficiency will tend to look very different from provider and client perspectives.

3. **Provider performance indicators of effectiveness**

If an institution is concerned not merely to ensure that it is spending money according to some agreed norm, but that it receives genuine value for money, it may wish to consider a number of additional indicators.

(a) **Enrolments of students on courses**, particularly if this is related to some agreed target reflective of anticipated demand/need, may suggest that the college has got the particular offering right (or wrong), assuming, of course, that low enrolment rates are not a consequence of other factors (entry requirements, fee costs, etc.).

(b) **Retention or completion rates** may indicate levels of client satisfaction with what is on offer.

(c) **Qualifications gained**, where appropriate, may reveal how well the institution's teaching has succeeded.

(d) **Post-course destinations**, including both job takeup and progression to more advanced courses, may further highlight the institution's success at meeting the needs of employers or other educational establishments.

(e) The obvious limitations of the above performance indicators are that they do not reveal anything about provision which is not on offer, but which is required by

students/employers; nor will they indicate the extent to which what is on offer is considered appropriate by clients, since if X is not available, they may have to make do with Y. It also needs to be noted that b), c) and d) relate to outputs, and that a) is about inputs whose appropriateness can be subsequently challenged by b), c) or d), i.e. outputs or outcomes.

4. **Client performance indicators of effectivenes**

Here the client may share indicators with the provider, although the 'slant' may often be different. The client will also have additional indicators which may be of no concern to providers.

(a) **Enrolments of students on courses** may suggest something of client interest/need, although they may also represent compromise with limited offerings, pressure from enrolling lecturers anxious to ensure viable class numbers, and/or poor pre-course counselling.

(b) **Retention or completion rates** may well indicate levels of client satisfaction, but they may also reflect the sudden availability of preferred options (i.e. a job, a different course), inadequate ability/motivation (as in *ab initio* foreign language study), or a whole range of other explanations.

(c) **Qualifications gained** are almost certain to reflect client perceptions of satisfaction.

(d) **Post-course destinations** (or their absence) where sought will again indicate the extent to which client objectives have been met, although client objectives may themselves alter between the beginning and the conclusion of a course.

(e) **Client satisfaction** may not necessarily be revealed by the above indicators, since it is possible to enrol on a course, complete it, pass the examination and use the latter as a stepping stone to another qualification or a job,

while still feeling that the learning experience has been inadequate or inappropriate both in itself and/or as a preparation for some other experience. If one wishes to determine the extent to which clients are satisfied, it will be essential to **question them individually** and **confidentially**: the former to avoid the fallacious assumptions that clients form a homogeneous, undifferentiated mass with a single view on any issue, and that one or two client representatives can accurately reflect the perceptions of the many; the latter to ensure responses are not contaminated by fear of reprisal. Also, one will almost certainly have to distinguish between student and employer perceptions, and one may do so at various times/points:

(i) through **formative evaluation** during the course of the organised learning, with a view to making modifications if/as appropriate;

(ii) at the conclusion of the learning, through **summative evaluation**, which does not allow for modification for the respondents, but does ensure an overview of the entire experience;

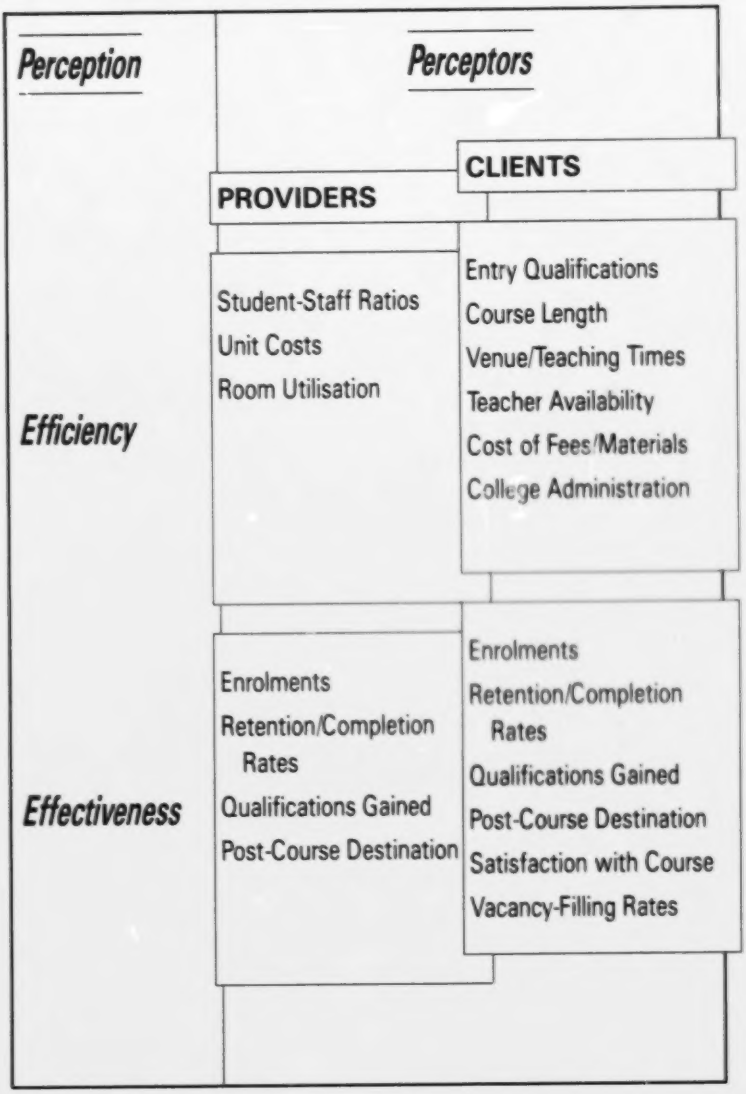
(iii) as part of an **after-sales exercise** to follow up the extent to which the learning has adequately prepared individuals for the activity to which they have moved on.

(f) From an employer's point of view, **vacancy-filling rates** will be important. This is not necessarily a function of enrolment-filling rates, since an individual employer will be concerned primarily to fill his/her own recruitment needs and not to ensure that recruitment to rival businesses is equally successful.

We may summarise the above in the form of a matrix, delineating/differentiating between perceptors (providers and clients) and perceptions (efficiency and effectiveness), as set out in Figure 1.

Figure 1

MATRIX OF PROVIDER/CLIENT PERFORMANCE INDICATORS



THE LIMITATIONS AND ADVANTAGES OF PERFORMANCE INDICATORS

It would be remiss to suggest that performance indicators are in themselves a panacea for educational ills, or that their more general introduction would in itself resolve long-standing problems. Lest we advance uncritically towards an advocacy which could hold out false hopes, it will be useful first to rehearse the limitations of performance indicators.

1. As will be apparent from the above discussion, any one performance indicator is likely to offer a crude depiction of a complex experience. Retention rates (relatively high or low) may be accounted for by a plethora of explanations. The same will be true of client satisfaction or post-course destination. Whether we examine the learning/teaching situation from the provider's or the client's point(s) of view, or (ideally) from both, we are dealing with a reality in which any one effect may be accounted for or influenced by a multiplicity of variables. By way of comparison, we may point to the thermometer: if we are going out, an external thermometer will give us the temperature outside, but it will not tell us whether it is night or day, raining or sunny, dry or humid, windy or still, etc. One indicator will, of necessity, reveal one dimension but nothing approaching the totality: if we want to move closer to the latter, we shall have to use a number of indicators.

2. Whether we examine one or a group of indicators, what confronts us in a college will be dependent on whether we have chosen to **aggregate or disaggregate** the results. If we produce a single figure for examination pass rates for the entire institution, the likelihood is that the result will be respectable, if not always impressive. However, as we disaggregate — as we calculate on the basis of individual academic cost centres, curriculum areas, examinations, or specific classes — differences will tend to emerge, and the differences will be concerned with varying levels of indicated performance efficiency or effectiveness. Unless we disaggregate at some point, potential problems will not surface; aggregation will usually be an effective way of burying most potential embarrassments, as where an over-all SSR masks dramatic extremes in class sizes/recruitment.

3. Even with a group of performance indicators centred on a single class, the resulting information is unlikely to depict anything which, in itself, provides an explanation. Performance indicators **require interpretation**. Low levels of client satisfaction, a high dropout rate and a low examination pass rate may suggest that something is wrong, but they will not necessarily tell you what or why. One may make guesses, but guesses are not facts. Consequently, interpretation is also likely to necessitate **subsequent investigation** if something approaching a full account is to be realised.

4. In the current (real or imagined) rush towards performance indicators, there may be a tendency to forget that data collection and analysis, which is what the use of performance indicators implies, **cannot be achieved without costs**. All institutional activity has resource implications. Moreover, data collection/analysis can itself be undertaken efficiently and/or effectively. This is an area of potential concern to which little or no thought has been given up to the present. While it may be unlikely that data analysis can be undertaken without the involvement of teachers at some level, data collection itself can be the responsibility of teachers or support staff. The tradition in British education has been to hand additional tasks on to teachers, in the expectation that they will be undertaken free of charge, if not necessarily free of deleterious consequences, such as less time spent on professional activity while more is devoted to administrative and clerical tasks.

5. When we confront the cost issue, i.e. how the use of performance indicators may be resourced, we need to consider **data collection options available** to managers and the attendant advantages/disadvantages. For example, soliciting client views on satisfaction with education/training, attempting to follow up dropouts for explanations, or tracking leavers can be conducted in two fundamental ways:

   (a) One can seek to make **personal contact/interview**, either by visits or by the telephone. This approach, particularly in face-to-face contact, is likely to produce the fullest and most detailed data, but the cost implications are considerable. While teachers are

exhorted to visit employers more and more, there is little apparent analysis of how such activity is to be resourced. There is also a tendency to forget that employer visits may be cheaper in a large connurbation with inexpensive public transport and more costly in dispersed rural communities. Moreover, the consequence of full and detailed data is data that is not easily handled, so that more involved analysis becomes in itself an additional cost.

(b) Alternatively, one can go for **questionnaires**, and this has turned out to be a much favoured approach. It is relatively inexpensive and it yields easily quantifiable data. The disadvantages are that questionnaires can be said to constrain respondents, frequently by limiting the number and variety of responses, thus simplifying the recording of client perceptions in the interests of tidy data. Questionnaires are also impersonal, and if received through the post may result in low returns, which may raise unanswerable questions about the distinguishing features of returners/non-returners.

6. The use of performance indicators raises **the question of frequency of data collection**. A provider performance indicator such as unit costs implies an annual or course calculation. With some client performance indicators, this is unlikely to be a valid approach. Therefore, institutions might well wish to consider how often they use the same indicators: full-cost customised short course provision with the possibility of repeat business might well give rise to regular scrutiny of summative client satisfaction. If the course were very short, formative client satisfaction might be not only inappropriate, but of little practical use. On the other hand, courses lasting two or three years might admit of formative client satisfaction surveys shortly after their inception, and thereafter at half-yearly or yearly intervals. Or it might prove appropriate to scrutinise alternative annual cohorts of students in a well running course.

7. There is a fair likelihood that **different performance indicators may give different impressions of the same**

experience of which they are intended to render an impression. This is clearly a possibility between providers and clients. For example, a course may recruit well, offer high retention rates, high pass rates, and high levels of success in job placement and/or access to further study, while still being perceived by many students and employers as fundamentally unsatisfactory because it fails to provide what they require. It is also possible that a course intended for direct entry to employment may register high on formative client assessment, high on examination pass rates, but low on post-course destinations. In such an instance, if providers were able to select which indicators they were to use, they could give significantly different pictures of the same client experience. Therefore, **which performance indicators are employed to examine efficiency and effectiveness will be likely to influence the possible results**. The use of all performance indicators, even the limited list provided above, would probably be prohibitive in terms of cost.

8. The essential danger in the use of performance indicators is a possibility of forgetting that data so collected has no talismanic properties in itself. Indeed, it is useless unless it **forms the basis for appropriate action**. By appropriate action is not meant merely acting on bad news, i.e. confronting low retention rates, low SSRs, high unit costs, but also acting on good news, i.e. high retention rates, high SSRs, low unit costs. Traditionally, one suspects that the teaching profession is reluctant to act on any kind of news, generally for fear of embarrassment, although of different varieties in different instances. If the use of performance indicators results in data which is merely the basis for staffroom or corridor gossip and anecdote, then we shall clearly be wasting our time.

Despite the many caveats — or perhaps, more accurately, difficulties — surrounding the use of performance indicators, we may ask why they have become the centre of mounting preoccupation and interest. From an institutional perspective, one may advance several explanations.

1. The British education system has not been notorious at institutional level for sustaining a valid data base upon which to take decisions. Traditionally, there has been **very little**

attempt at formal (i.e. organised, systematic, regular) data collection. Without such data, rational decisions are difficult to take. This may not have mattered during a period of general expansion, when the problem was whether to meet need X or need Y, but in a period of general system contraction within conventional markets, mounting inter-institutional competition, and a need to open up new, different, and changing markets in order to survive, educational managers require information about what is happening and not happening. **Performance indicators may not be ideal, but, at the moment, they are all we have**. One may anticipate that the use of such indicators for a decade or two may inspire the survivors to look back with dismay at the simplicity and crudeness of what was undertaken in the 1980s, but the alternative (no data) is even more simplistic and crude.

2. Self-knowledge is an attribute difficult to associate with most British colleges. For example, few institutional managers have information about patterns of industrial visits by college staff: who is visited, how frequently, and for what purposes. Nor does there appear to be much information about how students actually reach colleges: through advertising, intermediate agencies/agents, word of mouth, direct approach, etc. The majority of course tutors would encounter difficulty in telling a new course recruit what successful course completers over the past three years are now actually doing with their education/training. And so on . . . It is therefore not merely a matter of finding out how cost effective educational establishments actually are (important as that may be), but also of **helping providers to understand more fully the nature and consequences of their own activity, the opportunities which are being taken, and those which have not yet been confronted**. This, of course, is information capable of surfacing only if colleges become more client-centred, actually spend resources on talking with clients and examining their perceptions, i.e. look not only at provider/professional perceptions of efficiency and effectiveness, but come to appreciate that clients are part of the teaching/learning experience and may have something to contribute to its delivery.

THE CLIMATE AND CONTEXT SURROUNDING PERFORMANCE INDICATORS

Yet it would be a mistake to trace the growing interest in performance indicators to activity at institutional level. If one is looking for an explanation, one has to turn, instead, to a national (and even an international) perspective. Increasingly, those of us who inhabit Western culture live in a world where accountability is an obsessive concern, and performance indicators can best be understood in this larger context. By way of origin, one can point to the economic recession and the attendant preoccupation with resource deployment, to major demographic shifts, and to entry into another phase of the industrial revolution. The necessity for change haunts us. Most of us need to move towards new things, new ways, new skills, new assumptions, new expectations, new possibilities. Accountability is a means of challenging the old ways, old skills, old assumptions, old expectations, old possibilities. Accountability is about examining where we are and where we need to go.

In education, at the chalk face, accountability tends to be perceived as a bottom-up activity, justifying (or not) one's performance to one's master(s). To some extent such a perception is valid. There is clearly a movement towards increased central control, often viewed in party political terms in Britain, but common enough on both sides of the Atlantic. By way of example, one need point only to the aforementioned joint efficiency study (DES/WO 1987) where the 'jointness' can be demonstrated by the list of participants, all of them either central agencies or a more centralised manifestation of local agencies: the Association of County Councils, the Association of Metropolitan Authorities, the Welsh Joint Education Committee, the Department of Education and Science, the Welsh Office Education Department, the Manpower Services Commission, Her Majesty's Inspectorate, the Further Education Staff College, and the Treasury — an awesome and impressive list of providers. Because they are providers, their basic concern is essentially derived from a provider perspective: value for (generally their) money. Indeed, were they to be uninterested in what funding was purchasing in the educational world, they might be accused of failing to discharge their responsibilities.

However, even if we acknowledge that such providers are not interested solely in money, in how little they need spend, but also in value, the provider view of both efficiency and effectiveness remains essentially limited. It gives us only one side of what is arguably a complex relationship

between provider and client, with the latter's perceptions left unexamined. Part of the problem has been the tendency to define the implicit dichotomy as between efficiency and effectiveness, with the educationist (FEU 1987a) suggesting that the manager is concerned solely with efficiency when he ought also to be thinking about effectiveness. The resulting dialectic has centred on a need to convince auditors, seen as concerned only with finance, of the necessity of taking quality into account. However, if one examines the above matrix, it becomes apparent that even the most hardened proverbial money men would be unlikely to resist attempts to relate educational expenditure to enrolment targets, retention or completion rates, pass rates, and/or post-course destinations, since the provider conception (efficiency and effectivenss) is all of a piece, consistent throughout in its preoccupation with viewing a relationship from one side. The real dichotomy is between provider and client perceptions, between running an education system in which provision is perceived as acceptable by those professionally employed in its delivery, and one which is **also** viewed as acceptable by the users.

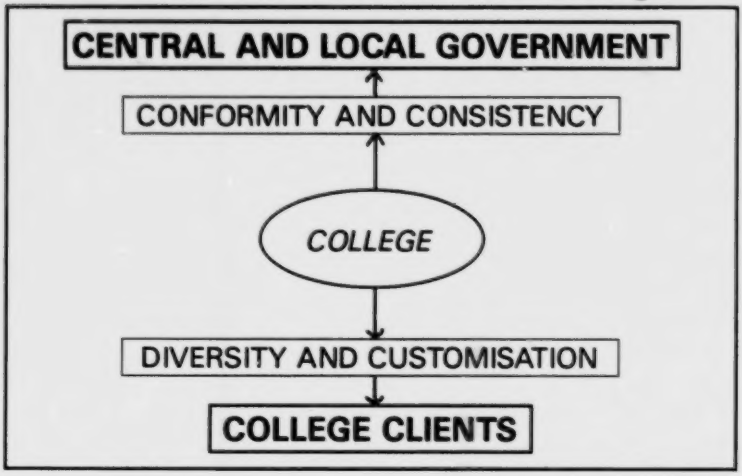
One can explain the prevailing emphasis upon provider views by widely observable characteristics of the British education system: its traditional provider centredness, and the absence of any accompanying formal commitment to the examination of client views; the emphasis (as in this paper) on provider representatives thinking and writing for other provider representatives; and the apparently 'hard', easily collected, quantifiable data which provider efficiency/effectiveness indicators seem capable of generating. Many colleges already have the Further Education Management Information System (FEMIS), concerned with generating information about provider efficiency. Most of the additional requisite data (except for following up dropouts and post-course movement) is largely already to hand.

Yet, in service industry terms, accountability is not solely a one-way activity, a bottom-up responsibility in which the worker demonstrates to his boss that all is well in the workplace. The provider also has responsibilities towards his clients, those who look to him for service and assistance. In education, from a college perspective, one may illustrate this (see Figure 2) in directional terms, i.e. via bottom-up and top-down accountability. The opposing directions also encompass opposing characteristics:

1. Bottom-up accountability is about **conformity and consistency**. The college needs to satisfy its funders that, in

Figure 2

Bottom-up and Top-down accountability as viewed from within the college



broad terms, it does not deviate significantly from its counterparts, and that across its varied provision there are not dramatic differences. Within the notion of bottom-up accountability there is **an implicit commitment to comparison**, and the assumption that one should be comparing (with the possibility of making adjustments for impinging variables) like with like. Thus, at the heart of the joint efficiency study is a matched pairs exercise (Birch *et al.* 1987) centred on five pairs of colleges in England and one in Wales exhibiting similarity in terms of size, course mix and location, but with significant differences in SSRs as revealed over two years in DES monitoring, and the task has been to explain (and ultimately remove) the differences. Bottom-up accountability takes us inexorably towards league tables, and in a provider accountability league table the most comfortable place to be is in the middle, since it avoids charges (from different directions) of meanness or extravagance. Bottom-up accountability is also about external control, i.e. from a college view about meeting local/central government demands, about coming into line.

2. Top-down accountability is about **diversity and customisation**. If one takes as a starting point the PICKUP (WFTE 1985) definition of marketing as

> . . . the creative process of satisfying customer needs profitably (effectively). A marketing orientated organisation is committed to a continuing process of identifying, reviewing and analysing customer and potential customers' needs.

It becomes apparent that the concern is with individualising, with matching provision to need, i.e. the starting point is the client, and insofar as clients exhibit different needs, **comparison is meaningless**, since it involves comparing like with unlike. Indeed, the greater the variety of individual needs, the less likely the college will be to meet those needs fully. One of the first lessons that service industry providers learn is that the possibility of pleasing all of the people all of the time is (in practice) impossible. The college may thus be judged outstanding in bottom-up accountability terms because it has met all of the **single demands** of its masters (defined SSR, unit costs, retention rates, etc.) while failing to some extent in meeting the **multiplicity of varied demands** from its clients. Thus a course examination pass rate of 75 per cent may prove a landmark from a comparative national perspective, while for the 25 per cent who failed (as well as those who dropped out) it represents a landmark of a different kind. Nor does the pass rate tell us anything about the usefulness, or otherwise, of the learning experience from the point of view of the successful candidates: most of us have passed courses which, in retrospect, appear relatively valueless. However, such concerns are not part of a bottom-up accountability system, and the extent to which they engage the energies of a top-down accountability system is largely a matter of individual and institutional interest, i.e. while the former is about external control, the latter is centred on **college self-control**, on the institution's scrutiny of its own activities with a view to modifying its delivery. One cannot therefore imagine a quality control system centred on client perceptions generating meaningful national league tables.

It will be apparent that the two forms of accountability represent not merely opposing directions, but the continuing influence of our two industrial models, manufacturing and service.

DEVELOPING AND USING PERFORMANCE INDICATOR INSTRUMENTS

In attempting to explain the origins of our present interest in performance indicators, I suggested above that technological developments were changing our world dramatically and that accountability was, at least in part, a way of examining the old and exploring the possibilities for the new. However, technology has also created **a means** of undertaking that scrutiny. The computer is altering our lives by enabling us to have access to, and to analyse, vast bodies of complex data whose collection would have only a few years ago seemed unacceptably difficult and expensive. For example, FEMIS would be unthinkable and inoperable without the computer.

On the other hand, the computer is not without its drawbacks. The capacity to gather information arouses in many of us the seductive lure of collecting, the feeling that acquisition is in itself a desirable experience. If it were not so, the world would probably contain fewer domestic collections of the complete only partially read novels of Dickens, the complete only partially heard symphonies of Haydn, or the complete only partially used volumes of the gardening/household/sewing weekly that builds, issue by issue, into a veritable encylopaedia. Or perhaps one should distinguish between collection starts and collection finishes, for manufacturers are well aware that volumes 1, 2, and 3 will sell in far greater quantities than volumes 10, 11 and 12. The first flush of enthusiasm can prove almost irresistible, even if with uncertain concluding results. One wonders, for example, to what purpose the current preoccupation with employer data bases will eventually be put in colleges up and down the land.

Performance indicators — such as SSRs, proportion of satisfied clients among employers sending employees to a course, or completion rates — represent the second of a potential five-stage top-down management accountability process:

1. There is firstly the need to **gather information**. To do this one needs techniques or instruments. FEMIS, for example, uses

class and teacher timetables as a data base. Work in the area of client perceptions of efficiency and effectiveness is far less advanced, although not really non-existent, as implied in the FEU (1987b) educational audit feasibility study. Since the beginning of 1986, The Responsive College Programme (RCP) has been developing techniques and instruments for the involvement of college clients in the process of identifying and delivering work-related training. The RCP is being funded by the MSC at approximately £1.7m over a period of three-and-a-half years, scheduled for completion at the end of March 1989. There are ten projects (in overlapping rounds, the first with four, the second six) based in local authority colleges. In the period from July 1986 to February 1987, there have also been 11 MSC-funded NAFE information systems pilot projects, three of them in RCP LEAs. Although much of this work has been concerned with gathering factual data about student characteristics, some of it has also involved exploring the areas identified under client perceptions in the above matrix. Additionally, there are also 11 MSC-funded one-year 'satellite' projects, variously started from autumn 1986, drawn from among the unaccepted second-round RCP bids, and collectively undertaking work in the area of quality control performance indicators. All of this activity has demonstrated the difficulties involved in developing techniques and instruments for data collection, not least because in serving the notion of customisation, while there may be some information which may be universally useful, there is also some which has currency only in particular situations. For example, travel to course venues in London with its extensive public transport network may not be a significant problem, while in Lancashire a college which draws students from a dispersed rural population may have to consider the implications of both course venue and timing. RCP is currently addressing the issues of general/particular instruments by developing 'core' materials which can be modified/adapted by individual users.

2. Once data has been collected, it is necessary to **analyse information**. In effect, this involves a reductive process. Some information, particularly that derived from visits to employers, may actually have a 'face' attached to it, so that one is aware of perceptions in firm X or firm Y. However, much of the information, particularly that derived from students, will be

anonymous, so that some degree of aggregation is inescapable. Those undertaking the analysis will have to decide at what level(s) to aggregate: the class, the course, the academic-cost centre, the college. The higher (i.e. the more embracing) the level of aggregation, the more differences will be submerged. If 80 per cent of students across the college are very satisfied/satisfied with their courses, the college can probably settle back with equanimity. Yet, if disaggregated figures reveal even higher levels of satisfaction in seven academic cost centres and strikingly lower levels in two such centres, or a course with almost no client satisfaction, then the college may wish to consider the disaffection.

3. Of course, in order to 'consider' anything, it will be necessary to **interpret information**. The information gathered and analysed will have become a performance indicator, but what it indicates will not be inherent in the data. When one is dealing with human perceptions, information is neutral until one attaches a value to it. This is true for both providers and clients. Thus an SSR of 17 to 1 is neither high nor low, efficient nor inefficient, until someone decides that it is one or the other, and the act of decision is essentially political. To an MPhil thesis supervisor, 17 to 1 might appear mean; to an infant-school teacher it might seem generous. In each instance, what is acceptable/unacceptable will be in part a function of precedent. In the field of client perceptions, comparison is even more difficult, for thus far we have little information about where we might expect differences: between different curriculum sectors, e.g. engineering and caring? between students and employers? between different geographical locations? Information relating to provider perceptions will be easier to handle judgementally because providers will tend to be organised politically/hierarchically to make the necessary decisions, so that reaching conclusions may be less problematic. With client perceptions we are dealing with individuals who are totally unorganised, so that we have to rely on provider interpretation: what level of dissatisfaction is significant? It is probable that with information related to client perceptions, **one may attach significance only to extreme indications of dissatisfaction**.

4. However, of necessity the information which one has is only an

indicator, but precisely what it indicates has yet to be determined. In order to move forward, one will have to **obtain additional information**. Causes and explanations do not appear in indicators: a room utilisation rate of 15 per cent offers no explanation of why the room is unused for 85 per cent of its capacity. The fact that 67 per cent of enrolled students have abandoned the course gives no hint of why they have departed. Indeed, there may be sound and valid reasons to explain seemingly troublesome performance indicators: at best, the performance indicator will suggest that further investigation is appropriate.

5. If the additional information suggests that a problem exists, one may then be expected to **act on information**. Again, this may well be easier when dealing with provider perceptions. For example, moving from an institutional SSR of 11.5 towards one of 13.0 may be both significant (especially if one's master so decrees) and possible, a shift of some 13 per cent from the baseline. One is here dealing with inputs, an obsessive, if understandable, preoccupation of the provider, but, conversely, how does one raise formative client satisfaction levels from 64 per cent to 72 per cent, or completion rates from 77 per cent to 87 per cent? From a client's point of view, effectiveness is about outcomes or consequences, and both are difficult to predict, let alone control, with individuals whom one has yet to meet. Managers need to accept that not all problems are capable of resolution or solution. Many circumstances remain outside institution influence.

We come eventually, if again, to the notion of **performance indicators as symptoms** flagging up a possible underlying difficulty, signals of potential trouble which may require examination. For a manager not to employ and scrutinise such indicators is to limit his scope for action and control. At the same time, the use of performance indicators may also promote a halo effect: clients whose views are solicited and who come to believe that their perceptions may occasion change may well regard the institution more favourably, so that the use of client performance indicators may both reveal and promote client satisfaction.

REFERENCES

Audit Commission (1985) **Obtaining better value from further education**. HMSO.

Birch Derek, Jack Latcham & Anne Spencer (1987) Joint efficiency study of NAFE: matched pairs case studies. **Coombe Lodge Report** Vol.19 No.11.

Department of Education & Science/Welsh Office (1987) Managing colleges efficiently. HMSO. ISBN: 0-11-2706266.

Training for jobs (1984) (Cmnd. 9135). HMSO. ISBN: 0-10-191350-8.

Further Education Unit (1987a) **Educating the auditors FEU.**

Further Education Unit (1987b) **Towards an educational audit: feasibility study**. Unpublished.

National Economic Development Council/Manpower Services Commission (1984) **Competence and competition: training and education in the Federal Republic of Germany, the United States and Japan**. NEDC.

Theodossin Ernest (1986) **In search of the responsive college**. Studies in Further Education. Blagdon, Further Education Staff College.

Wigan Foundation for Technical Education (1985) **Marketing PICKUP: a staff development programme**. WFTE.

DEVELOPING AND USING A PERFORMANCE INDICATOR INSTRUMENT

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'It's all very well in theory, but . . .' is a response familiar to most change agents. The old and conventional (including the non-existent) can be commended through the advantages of precedent and the convenience of inertia. Anything new which (almost inevitably) makes demands on resources has to be justified in terms of value for time and money not yet committed or spent. If we are moving, or being moved, towards the use of performance indicators in education management, what can college teachers and managers (as distinct from their central/local government colleagues) expect to gain from their efforts? The experience to date of The Responsive College Programme (RCP) offers some potentially useful answers.

ORIGINS OF THE RCP MARKETING INSTRUMENTS

At the start of 1986, when RCP began field work, its four first-round projects were encouraged to develop their own questionnaire instruments for soliciting client (student and employer) views on work-related courses. Those views were to be used in establishing a management information system for college marketing. In the middle of the year, 11 MSC-funded NAFE student information pilot projects independently initiated work covering at least some of the same ground. By the start of 1987 a great deal had already been done on questionnaire design, which it seemed pointless for the six second-round RCP projects to ignore.

There were other considerations. Some of what had been learned by both RCP and the NAFE pilot projects was about what not to do. Given MSC pressure for results, RCP could not afford to rediscover privately what was already known collectively. Also, part of the RCP brief was to develop college marketing techniques capable of general use within varied social/commercial/economic contexts. Comparison was proving difficult. If we put all of the alternative instruments side by side, not only did they ask similar questions in different ways, but they sometimes also asked very different questions, or failed to ask some questions at all.

The result was a decision by the RCP Central Team to move towards the development of **a set of core instruments** intended to elicit fundamental marketing information. These instruments should build on what had already been done, should be capable of modification to meet local needs, and should be tested nationally by RCP with regard to content, style, organisation and presentation. The projected set is expected to comprise six questionnaires, four on Student Perceptions of Colleges (acronymed SPOC 1, 2, 3 and 4) and two on Employer Perceptions of Colleges (EPOC 1 and 2). Thus far, SPOC 1 has been tested and developed in the first half of 1987, on the basis of which experience it will be altered and further tested in the autumn. The intention is to have Mark I of the entire set available for publication in Spring 1988.

DEVISING THE SPOC 1 QUESTIONNAIRE

The task of establishing the first instrument was undertaken by the Programme Co-ordinator, whose work in the planning stage drew heavily on earlier RCP experience and also benefited considerably from materials produced by the NAFE student information pilots. Questionnaires employing mainly closed questions were used as sources of information on content and style. Items from questionnaires with a more open-ended format were also examined for content, and, additionally, to identify the language used by students in freer responses. This was considered important because RCP is fundamentally about promoting client-centredness and involving clients in the development and delivery of training programmes: therefore our instrument should be aimed not at college staff, but at college users. It led to the following principles in the writing and design of the questionnaire.

1 Simple language is important. We should avoid educational or

questionnaire jargon. We should aim at a lowest common denominator as regards reading age within the target group.

2 To avoid patronising those with well developed reading skills, the explanation (on a small A5 information sheet which can be discarded by the respondent) accompanying the questionnaire should employ more sophisticated language.

3 All content should be aimed at students. There should be no messages (including coding) for teachers or administrators, no 'office only' sections.

4 It is essential that instructions should be simple and layout uncomplicated.

5 The end product should 'look good': the aim is a high, professional printing standard. Presentation — of self or artefact — conveys messages about attitude.

6 The questionnaire's length should be restricted to one piece of folded A3 paper providing 4 × A4 sides.

7 An A5 information insert should be added to give local identity to the instrument and to provide information about the point and purpose of the activity (c.f. 2 above).

8 The questionnaire should be regarded as a tool capable of adaptation, a core instrument which it should be possible to modify.

All RCP project co-ordinators were consulted as part of the development process. Most of their positive comments stressed the simplicity of content and style, and the fact that the questionnaire would be applied widely across the programme. Most of their negative comments were also about content and style. Those about content led to a considerable number of changes. However, requests for open-ended (rather than closed) questions had to be resisted in the face of other considerations: the time taken to complete SPOC 1 in class and to process and analyse the returns had to be kept to a minimum. By way of compromise, an open final section asks respondents to 'add anything about your college or your course' which they might wish included. The result is deliberately a fairly crude instrument to be used not for academic research, but as a management marketing tool.

The version of SPOC 1 which emerged from the consultation process was piloted with classes in a Bristol further education college. Additional (minor) changes were made. Later, when one project (Newham) identified a question on ethnic origin as essential, while others considered it undesirable, a special Newham SPOC 1 was printed with the extra item. To meet language requirements in Gwynedd, a Welsh language version of the questionnaire was produced. In the spring of 1987, approximately 12,000 instruments were administered across the country in 17 colleges in seven projects, the largest proportion (close to 7000) in Sheffield.

For the sake of completeness, and to facilitate the ensuing discussion, we provide in an APPENDIX the material included in SPOC 1 and one of the A5 information sheets. Because of the constraints of journal layout, what we offer necessarily gives no indication of the actual 'look' of the real product. Nor does it incorporate improvements which it is hoped to make before SPOC 1 is re-run in the autumn.

CAVEATS AND CONSTRAINTS

As will be apparent from the above, in turning to look at the work thus far done on performance indicators in RCP, we are dealing with what is incomplete and currently being developed. It is very much an interim look, with all of the warnings that such a glance implies. There are, however, a number of very specific caveats and constraints which ought to be noted.

1 The administration of SPOC 1 across the country represents very much of an **opportunity sample**. In each college in each project, **where** we are working is largely dependent on the particular departments, curriculum areas, courses or classes where project co-ordinators have been able to negotiate entry. For example, we tend to be well represented among engineers, primarily because many principals and heads of department are worried about the decline in engineering recruitment and are looking to a marketing programme for information and assistance. We are less well represented in curriculum areas where recruitment difficulties are less acute. And so on . . This means that despite the many SPOCs which have been completed, the respondents have not necessarily emerged in what might be construed as a representative sample on either a national or a college basis.

2 SPOC 1, for reasons explained above, is a crude monitoring instrument designed for rapid and relatively inexpensive use. Moreover, because it is a performance indicator instrument, it **indicates**, i.e. it directs attention to, without providing explanations, leading to conclusions or offering solutions.

3 SPOC 1 is specifically intended to gauge formative student satisfaction. It is meant for use in the period approximately six to eight weeks after the commencement of a course, and many items are therefore concerned with how a student found out about the course and with initial impressions. Because of the programme timetable, it was administered in the spring of 1987, i.e. 20+ weeks later than would be recommended.

4 In producing this paper, resource constraints have prevented our dealing with the total number of completed questionnaires available to us. We have settled on a nominal 2500 instruments as representing a sample sufficiently large to meet the needs of this paper. In including/rejecting questionnaires, we have tried to bear the following in mind: the preponderance of Sheffield scripts; the desirability of including as many projects and colleges as possible; the need to cover the widest range of curriculum areas, attendance modes (e.g. full time, part time, day release, etc.), employed/unemployed students. What we have is therefore a sample of a sample. The breakdown of these 2500 questionnaires (with non-completers represented as **missing**) is shown in Tables 1, 2 and 3.

Table 1

SELECTED SAMPLE OF SPOC 1 RESPONDENTS

RCP Project	Number of Scripts
Cleveland	49
Doncaster	231
Gwynedd	510
Lancashire	102
Newham	400
Sheffield	922
Strathclyde	286
Total	2500

Table 2
ATTENDANCE MODE AMONG SPOC 1 SAMPLE RESPONDENTS

Attendance Mode	Number	(%)
Full time	813	(32.5)
Part time	605	(24.2)
Day release	936	(37.4)
Block release	82	(3.3)
Other	55	(2.2)
Missing	9	(0.4)
Total	2500	

Table 3
EMPLOYMENT SITUATION AMONG SPOC 1 SAMPLE RESPONDENTS

Employment situation	Number	(%)
Full time employed	1127	(45.1)
On Government scheme:		
YTS	254	(10.2)
JTS	38	(1.5)
CP	11	(0.4)
Other	36	(1.4)
Full time student	775	(31.0)
Not working, but looking	121	(4.8)
None of the above, but looking part time	49	(2.0)
Other	60	(2.4)
Missing	29	(1.7)
Total	2500	

5 SPOC 1 (like its projected companions) is intended to give information about classes, i.e. about groups of students. It is at this level that it is most likely to prove useful, so that the discussions of the **global response** (the sample of 2500) are unlikely to be absolutely valid not merely because the sample is not necessarily representative, but because the instrument is not intended to gauge the state of the nation.

6 Likewise, our **college response** is unlikely to be accurate, since we are, again, dealing with an opportunity sample which is not necessarily representative of the institution as a whole, for which reason the RCP project responses (not always even representing all of the colleges in the LEA) cannot be relied upon to represent the true state of affairs.

7 Bearing the above points in mind, it will be important always to remember that our purpose here is not to assert fact but **to examine how the college manager might use performance indicator data**.

FEARS AND ANXIETIES ABOUT STUDENT EVIDENCE

When we began the RCP, with its focus on the involvement of clients in the identification and delivery of their training needs, the major teacher concern — latent and omnipresent, if seldom voiced — was the fear that given half a chance, students would 'rubbish' teachers. Was involving clients in exteriorising their perceptions of college provision not tantamount to introducing teacher appraisal surreptitiously?

At some distance from the anxiety, one can appreciate the absurdity of such a concern. It is difficult to imagine any area of professional activity which could be evaluated **solely** by laypersons/clients: surgeon appraisal based exclusively on patient interviews or civil engineering appraisal founded only on road user evidence would be preposterous. In all such instances, only peers can understand fully the problems and possibilities relating to professional performance, even if their clients have perceptions which help to illumine the activity under scrutiny.

On the basis of our present sample, such fears would seem to be somewhat beside the point. Asked whether they would recommend the college and the course to a friend, for the respondents who completed this section the results were as shown in Tables 4 and 5.

On the five-point scale provided, respondents tend to cluster on the positive end of the spectrum, more than three-quarters in the first instance, and nearly four-fifths in the second. Of course, what we have no way of determining is whether those who would be unlikely or certain **not** to recommend their college (14.5 per cent) or their course (11 per cent)

Table 4
WOULD YOU RECOMMEND THE COLLEGE TO A FRIEND?

Value Label	Frequency	(%)
Definitely yes	798	(32.4)
Possibly	1072	(43.6)
Undecided	235	(9.5)
Unlikely	253	(10.3)
Definitely no	39	(4.2)
Total	2461	

Table 5
WOULD YOU RECOMMEND YOUR COURSE TO A FRIEND?

Value Label	Frequency	(%)
Definitely yes	885	(36.5)
Possibly	1035	(42.7)
Undecided	237	(9.8)
Unlikely	198	(8.2)
Definitely no	69	(2.8)
Total	2424	

Table 6
HOW WOULD YOU RATE THE MATERIALS FOR PRACTICAL WORK?

Value Label	Frequency	(%)
Very good	296	(14.1)
Good	861	(41.0)
So-so	537	(25.6)
Below standard	220	(10.5)
Bad	185	(8.8)
Total	2099	

represent a proportion about whom we ought to be deeply concerned, or whether we are into an example of the difficulty of pleasing all of the people

Table 7

HOW WOULD YOU RATE THE SUBJECT CHOICES AVAILABLE?

Value Label	Frequency	(%)
Very good	231	(11.5)
Good	960	(47.8)
So-so	604	(30.0)
Below standard	110	(5.5)
Bad	105	(5.2)
Total	2010	

Table 8

HOW WOULD YOU RATE THE ORGANISATION OF THE COURSE?

Value Label	Frequency	(%)
Very good	239	(9.8)
Good	993	(40.7)
So-so	717	(29.4)
Below standard	254	(10.4)
Bad	239	(9.8)
Total	2442	

Table 9

HOW WOULD YOU RATE THE CONTENT OF THE COURSE?

Value Label	Frequency	(%)
Very good	348	(14.2)
Good	1256	(51.2)
So-so	661	(27.0)
Below standard	125	(5.1)
Bad	61	(2.5)
Total	2451	

all of the time, since we are here dealing with a value judgement for which we have no clear precedent. Nevertheless, there is nothing here to suggest widespread dissatisfaction among college clients — quite the reverse.

Table 10

HOW WOULD YOU RATE THE TEACHING?

Value Label	Frequency	(%)
Very good	508	(20.7)
Good	1210	(49.3)
So-so	561	(22.9)
Below standard	104	(4.2)
Bad	69	(2.8)
Total	2452	

Table 11

HOW WOULD YOU RATE THE COURSE MATERIALS (HANDOUTS ETC.)

Value Label	Frequency	(%)
Very good	379	(15.7)
Good	1084	(44.9)
So-so	729	(30.2)
Below standard	123	(5.1)
Bad	99	(4.1)
Total	2414	

A similar picture emerges if we ask more specific questions about the student's course. (See Tables 6–11).

We can combine the above information in a single table, moving from top to bottom in order of decreasing satisfaction, grouping the responses for the two value labels at either end of the spectrum, as shown in Table 12.

Any notion that, given an opportunity to express their perceptions of their courses, students would 'rubbish' teaching staff is very firmly repudiated by the above tables. Indeed, Table 12 makes clear that our sample rated course teaching more highly than any other aspect of their college learning. On the other hand, in relative terms, there is some dissatisfaction with practical materials and course organisation, both of which might be seen as activity areas of managerial rather than teaching responsibility.

Table 12

POSITIVE/NEGATIVE PERCENTAGE RESPONSES TO ASPECTS OF COURSE PROVISION

Course Feature	Very Good or Good	So-so	Below Standard or Bad	Total Respondents
Teaching	70.0%	22.9%	7.0%	2452
Content	65.4%	27.0%	7.6%	2451
Course materials	60.6%	30.2%	9.2%	2414
Choices available	59.3%	30.0%	10.7%	2010
Practical materials	55.1%	25.6%	19.3%	2099
Organisation	50.5%	29.4%	20.2%	2442

The essentially reflective nature of the student responses is further emphasised by comparing global sample perceptions, as in the above table, of student ratings of non-teaching aspects of college life:

Table 13

POSITIVE/NEGATIVE PERCENTAGE RESPONSES TO NON-COURSE ASPECTS OF COLLEGE LIFE

College Feature	Very Good or Good	So-so	Below Standard or Bad	Total Respondents
Specialist rooms (labs, workshops)	54.7%	28.3%	17.0%	1893
Help from non-teaching staff	49.1%	30.8%	20.1%	1674
How buildings look from outside	40.2%	45.7%	14.1%	2445
How buildings look from inside	36.5%	46.3%	17.2%	2454
Classrooms	35.9%	45.6%	18.4%	2417
The canteen	29.8%	40.6%	29.7%	2133
Other social areas	24.3%	37.4%	38.3%	1860

What is clearly implicit in Tables 12 and 13 taken together is that our global sample tends to respond more positively to the teaching aspects of their

college experience and less positively to non-teaching (especially domestic/social) aspects. Such data ought to go some way towards challenging those professionals who have argued that student evidence is likely to prove 'threatening' to teachers. Indeed, there is here considerable evidence to support a contrary view. The evidence also suggests that it is managers rather than classroom teachers whose complacency might be at risk.

STUDENT GROUPS AS MARKET SEGMENTS

The above data might also be said to hold a certain fascination **because** it tends to contradict some of the basic tenets of the folklore and 'received wisdom' with which educational debate is so often conducted (or riddled). Most of us tend to generalise too easily without adequate empirical evidence. We ought to know better. However, the kind of material offered above has limited practical use, in debate or elsewhere: it tells us a great deal about approximately 2500 students, but very few of us ever have to deal simultaneously with so large a group of students. Moreover, students are not an undifferentiated homogeneous lump. A large college might have 15,000 or more students at any time, and they will be likely to differ from one another in most of the ways in which 15,000 people are likely to differ. If we are going to use any of the data in the interests of developing a better understanding of college clients and their needs, we shall have to approach it on a sub-group rather than a global basis.

For example, if we break down responses to the earlier question about whether students would recommend the college to a friend on the basis of course mode, interesting results emerge. (See Table 14).

This shows part time students expressing most enthusiasm about their colleges (86.3 per cent in the two most positive responses, only 7.5 per cent in the two least), with those on day release less impressed (67.5 per cent positive, 18.9 per cent negative). Block release students (just over 3 per cent of the sample) show up as the group giving the most varied set of responses. A similar analysis based on employment status offers no clear conclusions, except perhaps that two main groups (students in full time employment and students on full time courses) reveal an almost identical pattern response, with, respectively, 77.4 per cent and 77.5 per cent in the two positive bands, and 12.9 per cent and 14.8 per cent in the two negative.

Table 14
WOULD YOU RECOMMEND THE COLLEGE TO A FRIEND?
ANALYSIS BY COURSE ATTENDANCE MODE

Value Label	Attendance Mode					
	Full Time	Part Time	Day Release	Block Release	Other	Row Total
Definitely yes	232	259	159	26	19	695
(column %)	(34.0%)	(48.6%)	(20.7%)	(36.6%)	(37.3%)	
Possibly	297	201	359	23	19	899
(column %)	(43.5%)	(37.7%)	(46.8%)	(32.4%)	(37.3%)	
Undecided	52	33	104	3	5	197
(column %)	(7.6%)	(6.2%)	(13.6%)	(4.2%)	(9.8%)	
Unlikely	75	31	87	19	6	218
(column %)	(11.0%)	(5.8%)	(11.3%)	(26.8%)	(11.8%)	
Definitely no	26	9	58	—	2	95
(column %)	(3.8%)	(1.7%)	(7.6%)	—	(3.9%)	
Column Total	682	533	767	71	51	2104

Analysing the same item by age group also provides interesting results:

Table 15
WOULD YOU RECOMMEND THE COLLEGE TO A FRIEND?
ANALYSIS BY AGE GROUP

Value Label	Age Group				
	16–19	20–25	26–40	40+	Total
Definitely yes	244	165	165	70	644
(column %)	(23.5%)	(34.4%)	(59.4%)	(76.1%)	
Possibly	508	216	92	18	834
(column %)	(49.0%)	(45.0%)	(33.1%)	(19.6%)	
Undecided	118	40	7	2	167
(column %)	(11.4%)	(8.3%)	(2.5%)	(2.2%)	
Unlikely	113	43	8	2	166
(column %)	(10.9%)	(9.0%)	(2.9%)	(2.2%)	
Definitely no	50	15	6	—	71
(column %)	(4.8%)	(3.1%)	(2.2%)	—	
Column Total	1037	480	278	92	1887

Even given the small proportion of 40+ students — which may actually reflect their relative presence in colleges — what is striking is the way in which support rises with the age groups (from approximately 23 per cent to 34 per cent to 59 per cent to 76 per cent) and disaffection appears to decline with increasing age.

However, it would be inappropriate to draw too much from these figures, or from those which divide responses according to sex, as shown below:

Table 16
WOULD YOU RECOMMEND THE COLLEGE TO A FRIEND?
ANALYSIS BY MALE/FEMALE RESPONDENTS

Value Label	Males	Females	Row Total
Definitely yes	403	273	676
(column %)	(29.5%)	(38.5%)	
Possibly	598	295	893
(column %)	(43.7%)	(41.6%)	
Undecided	145	51	196
(column %)	(10.6%)	(7.2%)	
Unlikely	150	68	218
(column %)	(11.0%)	(9.6%)	
Definitely no	71	22	93
(column %)	(5.2%)	(3.1%)	
Column Total	1367	709	2076

This type of analysis is of interest in that while the various age groups and sexes may have different bases on which to comment on their courses (given that certain courses may attract a larger group from particular age bands, or from one sex), all students should have **at least some common experience** of college facilities and services (allowing, of course, for varied provision among different college sites), and the manager might well wish to know whether particular kinds of provision are especially important to all the students or to some sub-groups among the student body. We have therefore extended the above sub-group analysis to take in three areas of relative global dissatisfaction: how the buildings look from inside, and responses to classrooms and other (i.e. as distinct from the canteen) social areas. For the sake of convenience, Very Good and Good responses have been combined as Positive, and Below Standard and Bad as Negative. The following two tables suggest that physical provision does not significantly

link with over-all client college evaluation among any of these sub-groups, but that it seems to matter more to younger rather than older age groups, and that females are somewhat less impressed than males with other social areas. What such data cannot tell us is whether some sub-groups are taught in newer, more attractive buildings or classrooms, or expect to use other social areas more or less frequently. (See Tables 17 and 18).

AN OVERVIEW OF STUDENTS IN THE GLOBAL SAMPLE

If we stand back from the previous 15 tables, what kind of general impression do we gain from the responses of the 2500 students in our sample of SPOC 1 questionnaires?

1 In answering the 15 specific questions put to them about their colleges and their courses, the students are overwhelmingly positive in their responses. Given a five-point scale, the majority tend to respond towards the positive end (above the mid point) on nine occasions. Never once does a majority respond towards the comparable negative end. More than three-quarters would definitely or possibly recommend their college to a friend, and nearly 80 per cent likewise their courses.

2 Among the 13 aspects of the college and course to which the students were asked to respond, they are most enthusiastic about the teaching: 70 per cent rate it very good or good, and only seven per cent below standard or bad. They are almost equally supportive of course content (respectively 65.4 per cent and 7.6 per cent) and only slightly less so with reference to course materials (60.6 per cent and 9.2 per cent). Thereafter they become progressively less positive as they move through responses to: choices available, practical materials, course organisation, specialist rooms, help from non-teaching staff, how buildings look from outside and inside, classrooms,the canteen and other social areas. With reference to the last two (respectively 29.8 per cent positive and 29.7 per cent negative towards the canteen, 24.3 per cent and 38.3 per cent towards other social areas), there appears to be considerable dissatisfaction which stands out among much else which is

Table 17

ANALYSIS BY AGE GROUPS OF POSITIVE AND NEGATIVE RESPONSES TO COLLEGE FEATURES

College Feature	16–19		20–25		26–40		40+	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Buildings inside	453 (32.9%)	278 (20.2%)	211 (34.9%)	90 (14.9%)	152 (44.4%)	43 (12.6%)	67 (63.8%)	7 (6.7%)
Group Total*	1375		605		342		105	
Classrooms	427 (31.3%)	290 (21.3%)	227 (38.3%)	96 (16.2%)	142 (42.4%)	50 (15.0%)	59 (59.6%)	6 (6.0%)
Group Total*	1363		594		335		99	
Other social areas	287 (23.9%)	460 (38.3%)	94 (22.6%)	177 (42.4%)	47 (25.8%)	61 (33.5%)	16 (42.1%)	8 (21.1%)
Group Total*	1202		417		182		38	

* These totals include positive and negative sums, as noted, plus those who rated the feature So-So and are provided primarily to identify the size of each sub-group sample.

Table 18

ANALYSIS FOR MALE/FEMALE POSITIVE/NEGATIVE RESPONSES TO COLLEGE FEATURES

	Males		Females	
College Feature	Pos	Neg	Pos	Neg
Buildings inside	636 (37.3%)	307 (18.0%)	241 (33.9%)	111 (15.6%)
Group Total*	1704		712	
Classrooms	587 (34.9%)	338 (20.0%)	262 (37.6%)	104 (14.9%)
Group Total*	1685		697	
Other social areas	357 (26.6%)	483 (36.0%)	88 (17.8%)	221 (44.8%)
Group Total*	1344		494	

* These totals include positive and negative sums, as noted, plus those who rated the feature So-So and are provided primarily to identify the size of each sub-group sample.

otherwise so positive. The entire range of responses suggests much thought and discrimination in answering the questionnaire.

3 If we segment the global group along a number of variables, there are clear differences in terms of attitudes towards the college: part time students appear to be most positive and day release students least positive; positive attitudes tend to increase progressively with student age; females are somewhat more positive than males.

4 With reference to features of college provision (how the buildings look from the inside, the classrooms, other social areas), with one exception, positive attitudes tend to increase and negative attitudes to decrease progressively with increasing student age. Among males and females, differences in positive/negative attitudes are not either extreme or dramatic, except for other social areas, where females are significantly more disapproving.

5 The assertion that allowing students to express their degree of satisfaction with college and course provision is potentially 'threatening' to teachers is difficult to substantiate from the above evidence. Indeed, teachers and managers genuinely desirous of improving client provision might find such data helpful in arguing their case.

THE WIDER ROLE OF SPOC 1: HOW DO STUDENTS FIND OUT ABOUT THEIR COURSES?

SPOC 1 is intended not merely to solicit student perceptions of the college, but also to fulfil a wider role in gathering additional information about the market which the college serves. In the real world, it would be difficult always to draw a fine distinction between quality control and market information. For example, declared student views about classrooms and teaching may seem to relate to quality alone, and data about how students found out about courses may appear to be solely about the promotional side of marketing. Yet informing potential clients about, and getting them into, the right courses is also part of a quality assurance system; and client testimony about the effectiveness of delivery has implications for any attempts at extending market takeup. The same interconnections may be observed in evidence about students' personal objectives and the extent to which their courses are helping to fulfil aspirations.

We therefore deliberately took a broader view of marketing. For example, we asked students how they had found out about their courses. From the global sample, the declared sources of information (in order of decreasing frequency) are:

Table 19
SOURCES OF INFORMATION ABOUT COLLEGE COURSES AMONG GLOBAL SAMPLE

Source of Information	Percentage
From the student's employer	31%
From phoning or visiting the college	20%
From a friend or member of the family	14%
From a careers officer	13%
From a careers teacher or other teacher	12%
Other	5%
From a newspaper or other advertisement	4%
From a library	1%

The table provides interesting information. Exactly 70 per cent of the students found out about their courses from people who are not members of the college staff (45 per cent from employers, friends, family, 25 per cent from careers officers and teachers), so that the colleges involved would appear to have received most of their clients in spite of anything they may or may not have done.

The figure which possibly stands out most in this data is the percentage declaring newspaper or other advertising to be their source of information. It must be borne in mind that we are unclear as to the extent to which advertising plays a part in promoting the colleges involved in the survey, or about the actual quality or appropriateness of that advertising. Furthermore, it may be that advertising has played some part in persuading the student to phone or visit the college, to consult a careers officer, or whatever. However, taken at face value, the main message in this figure is clear: its relative value shows that newspaper or other advertising is an unimportant factor in directing students towards colleges of further education in our sample. Before embarking on any major promotion activity using this medium, these colleges ought to be clear as to the role they see the promotion playing (e.g. awareness raising, image enhancement, sales, etc.) and the impact they can reasonably expect the expenditure to have, compared with a similar commitment of resources in another area.

A point worth noting in relation to the global examination of these figures is that no option appears in the questionnaire allowing the student to declare the prospectus as his source of information. The underlying assumption is that the prospectus is a source of information dependent on an initial contact with the college, careers service, school, library, etc. already having been made.

Again, it will be useful to segment our respondents into more clearly defined sub-groups, in this instance into those students who are principally sponsored by employers, and those who are not. Although it is not easy to draw an exact division to create this distinction, two groups which correspond roughly to those desired can be established by separating those who are day and block release from the main body of students. The figures in the following tables are again arranged in order of decreasing frequency:

Table 20

ANALYSIS OF SOURCES OF INFORMATION ABOUT COLLEGE COURSES AMONG RESPONDENTS ON DAY AND BLOCK RELEASE COURSES

Source of Information	Number	(%)
From the student's employer	578	(57.6%)
From phoning or visiting the college	115	(11.5%)
From a careers officer	113	(11.3%)
From a friend or member of the family	63	(6.3%)
From a careers teacher or other teacher	60	(6.0%)
Other	54	(5.4%)
From a newspaper or other advertisement	15	(1.5%)
From a library	6	(0.6%)
Total	1004	

Table 21

ANALYSIS OF SOURCES OF INFORMATION ABOUT COLLEGE COURSES AMONG RESPONDENTS *NOT* DAY AND BLOCK RELEASE COURSES

Source of Information	Number	(%)
From phoning or visiting the college	376	(25.9%)
From a friend or member of the family	282	(19.5%)
From a careers teacher or other teacher	222	(15.3%)
From a careers officer	195	(13.5%)
From the student's employer	180	(12.4%)
Other	96	(6.6%)
From a newspaper or other advertisement	80	(5.5%)
From a library	18	(1.2%)
Total	1449	

As might be expected, day and block release students identify their employers most frequently (57 per cent) as their source of information. Careers officers and phoning or visiting the college are the next two most frequently stated, with 11 per cent each. One quarter of the second student group declare phoning or visiting the college as their source of information; 19 per cent learned about their courses from friends or members of their

families; and careers officers/teachers and other teachers and employers all appear between 10 per cent and 15 per cent of the time.

More than 80 per cent of the day and block release students entered their courses through the agency of college outsiders acting as 'brokers', only 1.5 per cent through an advertisement. To put it another way, just over 2 per cent made their way to the college as a consequence of activity initiated by college staff. Among the remaining students, the comparable figures are 60.7 per cent, 5.5 per cent and 7.7 per cent. What this suggests is that external agents were responsible for four out of five students in day and block release courses, and three out of five among remaining courses: in both instances, college business was largely dependent on outsider support.

The main points of interest which emerge from the bivariate analysis of the data according to the second level divisions of age and sex are outlined in brief below. Analysis by age underlines the importance of careers staff and teachers as sources of information for students in the 16-19 age group. As regards phoning or visiting the college, this becomes increasingly likely as age increases:

Table 22

PROPORTION OF STUDENTS WHO GAINED COURSE INFORMATION BY PHONING OR VISITING THE COLLEGE

	Age Group			
Student Group	**16–19**	**20–25**	**26–40**	**40+**
Day/block release	8%	15%	24%	33%
All other students	17%	34%	38%	45%

Of course we are here dealing with extremely small figures. For example, only 1.5 per cent of day/block release students fall into the highest age band. Despite this limitation, the figures reveal potentially useful information about the behaviour patterns of different market segments. The bivariate analysis also reveals that newspaper and other advertisements take on some minor significance for non-day/block release students in the upper age bands, though they are of no significance at any level for day or block release students. (See Table 23).

No significant differences in sources of information are apparent from the analysis of male and female students in the two identified groups. Females

Table 23

PROPORTION OF STUDENTS WHO GAINED COURSE INFORMATION FROM NEWSPAPER OR OTHER ADVERTISEMENTS

Student Group	Age Group			
	16–19	20–25	26–40	40+
Day/block release	2%	1%	1%	—
All other students	1%	10%	8%	13%

in both groups state friend or family and phoning or visiting the college slightly more frequently than males, and the latter appear to rely more on employers in both groups, but the differences are small.

Additionally, one might analyse the returns along other dimensions, e.g. curricular sector (engineering, caring, catering) or personal objectives (c.f. below). In all such instances, one would be seeking to gain a fuller understanding of the essential characteristics and behaviour patterns of the college's market, and to segment that market in terms of response, so as to direct appropriate efforts at any one group. For example, new or modified provision among day and block release courses ought clearly to be notified to employers at the earliest possible opportunity, since nearly 60 per cent of the students appear to derive from that source. Among the global sample, one in five students can be said to have appeared via phoning or visiting the college, which suggests that on present evidence front-of-house reception staff ought to be the focus of more training investment than those engaged in preparing newspaper or other advertisements. If one in four students comes to the college via careers officers/teachers, one might well ask what efforts are taken to keep these 'brokers' both supportive and informed of current college developments.

WHAT DO STUDENTS HOPE TO GAIN FROM FROM THEIR COURSES?

In the global sample students responded to the question on what they hoped to get out of their courses as follows:

Table 24
WHAT DO YOU HOPE TO GET OUT OF YOUR COURSE?
ANALYSIS OF GLOBAL SAMPLE

Value Label	Number	(%)
A job	741	(30.1%)
To get a better job	538	(21.9%)
To do my present job better	466	(18.9%)
To go on another course	437	(17.8%)
For personal interest	189	(7.7%)
Other	89	(3.6%)
Total	2460	

Once again, such figures are perhaps of less value in this global form than when they are broken down according to the various sub-groups identified in this report. There are also additional sub-group divisions which are possible, e.g. among those who perceive their courses as work related (70.9 per cent of the first three groups in Table 24), those who are seeking to move onto another course (17.8 per cent, for whom non-work related objectives may apply in the next course), those who are primarily seeking personal interest (7.7 per cent), and the remainder (3.6 per cent). It is also worth noting that the student's perception of his course may be totally at odds with the education system's classification as either work or non-work related. For the marketing orientated college, the student's perception is, of course, the more important. The degree of mismatch between the intentions of the provider and the aspirations of the client offers potentially valuable market information.

If we analyse student objectives along the formal course classifications, the results are as shown in Table 25.

While it may be hardly surprising that more than 87 per cent of full time students are either seeking a job or another course, there are some relatively unexpected revelations. We note that 87 per cent of day release students see themselves as on work related courses, but only 30 per cent want to do their present job better, and 37.3 per cent are seeking better jobs. The group which appears most committed to their present jobs are block release students. Among part time students, more than 20 per cent (over five times the proportion in the other groups) are in the course for personal interest.

Table 25

WHAT DO YOU HOPE TO GET OUT OF YOUR COURSE? ANALYSIS BY FORMAL COURSE CLASSIFICATION SYSTEM

Value Label	Course Classification			
	Full Time	Part Time	Day Release	Block Release
To get a job	440	91	174	22
(column %)	(56.1%)	(16.2%)	(19.6%)	(28.6%)
To do my present job better	43	119	267	28
(column %)	(5.6%)	(21.2%)	(30.0%)	(36.4%)
To get a better job	25	141	332	21
(column %)	(3.2%)	(25.1%)	(37.3%)	(27.3%)
To go on another course	246	96	85	3
(column %)	(31.4%)	(17.1%)	(9.6%)	(4.0%)
For personal interest	30	114	31	3
(column %)	(3.8%)	(20.3%)	(3.5%)	(4.0%)
Totals	784	561	889	77

The results for the item on what students hope to gain from their courses were also analysed according to sub-groups corresponding to 'employment status'. These reveal YTS students as the most single mindledly work related students, with over 95 per cent declaring work related aspirations. (See Table 26).

We might note here the relative lack of interest among those in full time employment and on YTS and other schemes in undertaking another course, and the relatively high proportion of those looking for work or in part time work who are doing their present courses for personal interest.

Further relevant information about the group whose major objective for their courses is to do their present jobs better can be undertaken by analysing their responses to SPOC 1 question 3(d) which asks about the degree of help the course is providing with the student's job. (See Table 27).

The fact that 97.5 per cent of the 392 students who hoped that their courses would help them with their jobs stated that they were being helped to some extent is encouraging. However, the majority of the students opted for the lower of the positive categories, i.e. 53.1 per cent chose 'some' while 44.4 per cent chose 'very much'. There is clearly room for improvement,

Table 26

WHAT DO YOU HOPE TO GET OUT OF YOUR COURSE? ANALYSIS BY EMPLOYMENT GROUP

	Employment Group				
Value Label	Full Time Employ-ment	YTS	Other Scheme	Looking for Work	Part Time Work
To get a job	21	152	43	66	4
(column %)	(2.0%)	(62.6%)	(51.8%)	(58.4%)	(8.2%)
To do my present job better	361	56	13	1	13
(column %)	(34.3%)	(23.0%)	(15.7%)	(0.9%)	(26.5%)
To get a better job	463	26	17	1	10
(column %)	(43.9%)	(10.7%)	(20.5%)	(0.9%)	(20.4%)
To go on another course	113	3	4	19	9
(column %)	(10.7%)	(1.2%)	(4.8%)	(16.8%)	(18.4%)
For personal interest	96	6	6	26	13
(column %)	(9.1%)	(2.5%)	(7.2%)	(23.0%)	(26.5%)
Total	1054	243	83	113	49

Table 27

IS YOUR COURSE HELPING WITH YOUR JOB? ANALYSIS OF RESPONDENTS IN WORK WHO IDENTIFIED DOING THEIR PRESENT JOB BETTER AS THEIR MAJOR COURSE OBJECTIVE

Value Label	Number	(%)
Very much	174	(44.4%)
Some	208	(53.1%)
Not at all	10	(2.6%)
Total	392	

although we would wish to ascertain the extent to which those in the Some and Not at all categories actually saw course relevance to the job as a

personal objective. This type of information should be considered important by teaching and management staff, as should comparable responses from the entire group of full time employed students, where the analysis suggests there might be even less justification for complacency:

Table 28

IS YOUR COURSE HELPING WITH YOUR JOB?
ANALYSIS OF RESPONDENTS IN FULL TIME EMPLOYMENT

Value Label	Number	(%)
Very much	303	(27.3%)
Some	598	(53.9%)
Not at all	209	(18.8%)
Total	1110	

The above data suggests that further exploration about the actual relevance of courses to student/employee needs in the workplace might prove beneficial. Therefore, the conscientious manager might well wish to initiate more detailed analysis on the basis of classes or courses, or even academic cost centres, with a view to exploring still further any results which may prove particularly disturbing. However, the immediate value of the information in the above two tables is somewhat restricted by the limited options open to respondents in this SPOC 1 item, for which reason opportunities will be taken to effect improvements in subsequent editions.

THE MANAGER AND PERFORMANCE INDICATOR DATA

The point about more detailed analysis takes us perhaps to the heart of the performance indicator issue. Global information about large groups of students, such as the 2500 being considered here, is of academic interest in that it gives us a fuller and deeper understanding of the people with whom we work. However, it does not form the basis for any kind of valid action, and the manager is, of necessity, primarily a man (or woman) of action. How is he/she to proceed?

In the first paper in this volume, it was suggested that **aggregation** of data tends to smooth out differences and to produce an impression that all is reasonably satisfactory, or **OK**, while **disaggregation** tends to reveal differences and hence problems, leaving an impression that some things are

NOT OK. The manager wants (or should want) to know what is NOT OK so that he can do something about it.

Let us therefore disaggregate some of the above data on the basis of a single college and look at the material from the point of view of a principal. There are 15 items in SPOC 1 concerning student perceptions of the college and the course. In each the respondent was asked to make an evaluation on a five-point scale, moving from positive to negative. Let us therefore assign a value to each of the five points, one for the most positive, two for the next most positive, and on to five for the most negative. This will enable us to establish a mean for each response for each group which we wish to examine. The larger the mean, the greater the level of dissatisfaction, so that a mean of 3.2 will indicate less client approval than one of 2.3.

The approach is crude and is likely to raise a few eyebrows among serious statisticians, but we are not into refined analysis of the characteristics of our sample. Instead, we are seeking to scan the manager's domain with a view to identifying OK and NOT OK states. The results will certainly not tell us precisely what is wrong anywhere in the college, why it is wrong, and how to make it better. However what they may indicate is where there may be serious problems towards which we ought to direct further attention.

From our sample of 17 colleges, let us concentrate on College X, because we have a substantial number of responses from this institution and it is organised in a number of discrete academic cost centres, each with a range of course offerings, which will suit our purposes. For convenience, let us arbitrarily select SPOC returns from five of those academic cost centres and name them A, B, C, D and E. The results are set out in Table 29.

1 For each of the 15 items, we have calculated the mean for the global sample of 2500. A principal would be unlikely to have such data available about 16 other colleges, but our purpose here is to establish whether — given something of a national perspective — College X is significantly outstanding or weak. A comparison suggests that it is neither. Among the 15 items, **as a whole** College X shows more positive responses towards six areas than in the global means: recommending the course, materials for practical work, course materials, buildings from the outside, specialist rooms and help from non-teaching staff. Among the remaining nine items, College X deviates from the mean towards the more negative end of the response spectrum

Table 29

MEANS ANALYSIS OF STUDENT PERCEPTIONS OF COURSE AND COLLEGE FEATURES WITHIN FIVE OF COLLEGE X's ACADEMIC COST CENTRES

	Reference Points		Academic Cost Centre				
Course Data	Global Mean	College Mean	A Mean	B Mean	C Mean	D Mean	E Mean
Recommend Course?	1.965	1.900	2.000	1.826	***2.421***	1.867	1.894
Practical Materials	2.480	2.376	***4.000***	1.855	3.082	***3.628***	2.558
Subject Choices	2.410	2.422	2.600	2.595	2.862	2.364	2.352
Organisation	2.635	2.650	3.188	2.154	***3.900***	2.935	2.765
Content	2.268	2.283	***2.938***	1.985	***2.880***	2.555	2.321
Teaching	2.122	2.250	2.500	2.043	***2.920***	2.447	2.212
Course Materials	2.319	2.316	2.857	2.167	2.648	2.660	2.336
College Data							
Recommend college?	2.034	2.393	2.563	2.443	***3.196***	2.298	2.203
Buildings: outside	2.689	2.660	3.250	2.768	2.944	3.106	2.457
Buildings: inside	2.747	2.880	3.125	2.864	3.126	3.457	2.865
Canteen	3.099	3.397	***4.500***	3.804	3.963	2.957	3.043
Other social areas	3.322	3.500	3.909	3.743	4.085	3.848	3.333
Classrooms	2.786	2.850	3.000	2.859	3.138	***3.553***	2.865
Specialist rooms	2.512	2.399	***3.833***	2.234	2.809	***3.184***	2.402
Non-teaching help	2.662	2.652	***4.250***	2.314	***3.654***	2.083	2.532

as follows: seven times from 2 per cent to 7 per cent, once by 10 per cent (the canteen) and once by 18 per cent (recommending the college). A sensitive principal might be somewhat disturbed by the last figure, particularly since X is more positive than the mean towards recommending the course. However, the analysis provided here suggests that in comparative terms and on the data available, student satisfaction in the college is more OK than NOT OK. We would guess that this is a fairly conventional college.

2 However, if we now undertake the same kind of analysis among the 15 items for the college mean and the mean in each of the academic cost centres (A to E), striking differences begin to emerge. This gives us 75 figures (one per item per academic cost centre) of which 24 (32 per cent) are better than the college mean. The remaining 51 are less good. We now need to move towards interpretation.

3 Our problem is that we have no experience in this area, and hence no precedents. However, let us assume that our principal is not positively looking for trouble, and is an individual who recognises that nothing in this world is perfect: one has to learn to live with some level of client dissatisfaction. Nonetheless, our principal is not prepared to tolerate **just any level** of dissatisfaction, for which reason he/she suggests that a negative deviation from the college mean of 25 per cent or more within any item per academic cost centre at least merits some reflection. This means that 14 of our 75 figures (18.6 per cent) need to be considered. The deviations here range from 25 per cent to 68 per cent. The figures have been printed in **bold face** in the table.

4 If we examine the figures horizontally, in terms of rows, we are scrutinising the college (or that portion of it represented by these five academic cost centres) in terms of each of the 15 items. However, the items under 'course' data relate, by definition, to courses, and hence to academic cost centres. Under 'college' data, five items stand out according to our criterion, but the two which are mentioned twice are specialist rooms and non-teaching help, and it is not clear that these are necessarily related to college more than course. The three

others are mentioned once, and here the single (one in five) deviation from the college norm ranges from 25 per cent to 34 per cent. There is little we can see here which suggests widespread dissatisfaction across the college. Much more appears to be OK than NOT OK.

5 If we examine the figures vertically, in terms of columns, we are dealing with academic cost centres. Here extremes emerge. B and E appear to be centres of comparatively high levels of student satisfaction. We suggest that this is not solely a cause for celebration on the part of the principal: the good news ought to be shared with the staff in these academic cost centres. Of the remainder, we might note:

(a) In D, there is dissatisfaction with materials for practical work, classrooms and specialist rooms: this suggests the need to scrutinise resource allocation and teaching rooms. There is a possibility that external (resourcing) constraints may provide an explanation.

(b) In C, the NOT OK aspects seem to be rather different. The deviation from the mean for recommending the course is 27 per cent, possibly not worrying on its own, but disturbing in conjunction with other negative deviations: 47 per cent for course organisation, 25 per cent for course content, 30 per cent for teaching, 34 per cent for recommending the college. These students seem to be trying to tell us something. The negative deviation for non-teaching help is 38 per cent. This academic cost centre seems to be experiencing serious difficulties, most of which would appear to derive from staff and the way they do (or do not do) their jobs.

(c) In A, there appear to be a variety of problems: the deviation from the college mean is 68 per cent (the highest) for materials for practical work and 60 per cent for specialist rooms, which suggests a resourcing problem (either of provision and/or management). Help from non-teaching staff rates 60 per cent and course content 29 per cent, which would seem to have something to do with staff and the way(s) they interpret their roles. The canteen prompts a negative deviation of 32 per cent

in a college where what is in other institutions a source of considerable irritation does not appear to arouse strong feelings. This data does not fit into a tidy explanation.

(d) Neither (a), (b) nor (c) can provide us with more than a hypothesis. These performance indicators do not reveal explanations. By a process of **crude scanning** they **indicate** where problems **may** lie, without providing an origin or explanation for the problems, or leading us to any kind of likely resolution. They tell us where more work needs to be done, more scrutiny undertaken.

(i) In both academic cost centres A and D we would suggest that resourcing should be examined, particularly with reference to qualifications gained: how, if at all, do these apparent deficiencies in practial materials and teaching rooms influence outcomes?

(ii) In academic cost centres A and C, what is meant by non-teaching help? Are students referring to technicians or laboratory assistants, or college administrators? We shall certainly require more evidence in order to determine what the problem is: e.g. deficiencies in staff performance and/or inadequate staffing levels?

(iii) In academic cost centre A, why do students appear to be concerned about course content, and does this apply to one, some or all of the courses in this centre? Is the problem one of college origin or does it emanate from the external examining or validating agency?

(iv) In academic cost centre C, there appear to be so many performance indicators of relative dissatisfaction with the learning experience, that we would want to scrutinise other performance indicators for corroboration: course enrolments, retention/completion rates, qualifications gained, and post-course destinations. Ultimately we may

have to face the possibililty of a large-scale review in this centre.

(v) Academic cost centre A students are clearly unhappy (a negative deviation of 32 per cent from the college mean) with the canteen. The college mean itself indicates that this is the second least satisfactory feature of the institution from the client perspective, and there is evidence of disapprobation in academic cost centres B and C as well (negative deviations of 12 per cent and 17 per cent). It would be worth while identifying the origins of the apparent problems and whether anything can be done to alleviate the situation.

(vi) The approach we have chosen — seeking negative deviations of at least 25 per cent from the college mean — to identify areas of managerial concern has failed to spotlight the focus of most client dissatisfaction: the other social areas. Here, paradoxically, **the general level of disapproval is so consistently high** that deviations from the mean do not stand out. Whatever **system** we devise for dealing with performance indicator data should not be so mechanistic that it blinds us to the obvious. We really need to investigate further what can be done about our other social areas, bearing in mind that our global analysis suggested that it was younger, rather than older, clients who were most dissatisfied.

(e) Although all of the above is written from the likely point of view of a principal, the principal need not necessarily undertake either the work or the scrutiny referred to in d): the kind of college disaggregation revealed in Table 24 might now appropriately pass to the managers of the academic cost centres, each of whom is likely to find the ultimate explanation **at class level**, the point at which responsiveness to client needs either occurs or does not occur.

(f) The purpose of identifying the source of a problem as perceived by the college's clients is not to locate a scapegoat or to apportion blame, but to remedy a problem. Where non-human resources are involved, the solution may lie in prioritising and reallocating existing resources. Where people are concerned, what is almost certain to be required is a support system, a **coherent and organised approach to staff development**, genuine sympathy and understanding.

(g) It would be well to remind ourselves that the above began with the **arbitrary** decision to regard a negative deviation of 25 per cent or more from the college mean as significant. This was a political decision. One might just as reasonably (or unreasonably) have begun with a negative deviation of 30 per cent or 45 per cent. Conversely, after operating a performance indicator system for several years, and effecting significant increases in the levels of client satisfaction, one might then decide to regard a negative deviation of 20 per cent (or even 15 per cent) from the college mean as significant.

Our postulated principal (or academic cost centre head) may now claim that he/she has known about these problems for years: why bother with performance indicators? The answer, of course, is partly a question: if the problems have been identified for years, why have they not been (to some extent) resolved? The difference between hearsay/gossip/folklore and performance indicators is that the former offer a basis only for talk, while the latter **make some kind of requisite action difficult to avoid**. Performance indicators will solve no problems. Instead, they can make both us and our colleagues publicly aware of where problems need to be confronted: that, we would suggest, is the first step in establishing a quality assurance system, in demonstrating that effectiveness exists in the education and training we offer.

Our thanks to data analysts Gareth Birch and Alan Finlayson.

APPENDIX

This appendix provides a general description of the content of the questionnaire and the content of the A5 information insert which accompanied it.

DESCRIPTION OF THE CONTENT OF SPOC 1

Those responding to the questionnaire were asked to fill in details of their college, course, start date and course length. All of the questions which then followed were based on a tick box system with a space being left after each question for students who did not fall into any of the categories to provide details.

The first question asked them to give details of their type of course and offered them the options of —

full time;
part time;
day release;
block release;
'other'.

Next, students were asked to give details of how they found out about their course and were given the options of —

from a friend or member of your family;
from a careers teacher or other teacher;
from your employer;
from a newspaper or other advertisement;
phoning or visiting the college;
from a library;
other.

Students were then asked to give details of sex and age with four categories of age being offered — 16-19, 20-25, 26-40 and 40+.

Employment status was divided into:

full time employed;
on a government scheme (YTS, JTS, CT, etc);
full time student;
not working but looking for work;
none of the above but working part time;
other.

Those who declared themselves to be employed were directed to a question which asked for details of the name of their employer, the name of their job and the nature of their employer's business. They were also asked to declare whether they felt the course was helping them with their job and were given the options of 'very much', 'some', or 'not at all'.

When asked what they hoped to get out of their course, the respondents were directed to choose the one aspect which they considered to be most important. The options presented to them were —

I hope to get a job;
I hope to do my present job more successfully;
I hope to get a better job than at present;
I hope to go onto another course;
I am doing the course for personal interest;
other.

The final question involved students in rating various aspects of the college and the course. It was split into three sections. Firstly, students were asked whether they would recommend their college to a friend and whether they would recommend their course to a friend. They were asked to respond on a five point scale with the five possible points being — 'definitely yes', 'possibly, 'undecided', 'unlikely' and 'definitely no'.

The second section of the final question was aimed at collecting information on particular aspects of the college. Once again the students were asked to respond on a five point scale — 'very good', 'good', 'so-so', 'below standard' and 'bad'. They were also given the option of ticking a 'can't say' box. The particular aspects of the college which they were asked to rate were —

how the buildings looked from outside;
how the buildings looked from inside;
the canteen;
other social areas;
classrooms;
specialist rooms (labs, workshops);
the help you get from non-teaching staff.

In the last part of the final question students were asked to respond on the same scale to the following aspects of their course —

materials for practical work;
the subject choices available;
the organisation of the course;
the content of the course;
the teaching;
the course materials (handouts etc).

Space was left at the end of the questionnaire where students were invited to add any comments they wanted to make about the college or course.

INFORMATION IN THE A5 INSERT

Each A5 sheet gave local identity to the survey by being headed with the name of the project area concerned. The main content of the sheet was contained in the following (this example taken from the Strathclyde project):

'Why are we asking for your help?

We are working with employers and colleges to try to ensure that:

1 colleges produce the skills required by employers; and,

2 that employers realise the potential of colleges as training establishments.

Students in three colleges in Strathclyde — Clydebank, Reid Kerr and James Watt — are being asked to help us with our work.'

The sheet then went on to describe the broad context of the survey. Using a map of Great Britain as an illustration, the other project areas in which the survey was taking place were named and located.